

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

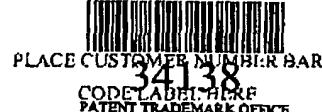
Assistant Commissioner for Patents
Washington, DC 20231

Sir:

**POWER OF ATTORNEY WITH REVOCATION AND
CHANGE OF CORRESPONDENCE ADDRESS**

I hereby revoke all previous powers of attorney or authorizations of agent given in the applications identified in Table A attached hereto, and appoint

Practitioners at Customer Number: 34138



as my/our attorney(s) or agent(s) to prosecute the application identified above, and to transact all business in the United States Patent and Trademark Office connected therewith.

Please change the Correspondence Address for all applications identified in Table A to:

Practitioners at Customer Number: 34138

I am the:

Applicant/Inventor.

Assignee of record of the entire interest. (A statement under 37 CFR 3.73(b) is enclosed.)

Respectfully submitted,

ISIS PHARMACEUTICALS, INC.

Date: 5-30-03

By: _____

Name: B. Lynne Parshall
Title: Executive Vice President

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

STATEMENT UNDER 37 CFR 3.73(b)

Applicant, **ISIS Pharmaceuticals, Inc.**, a corporation, states that it is:

the assignee of the entire right, title, and interest of the applications identified in Table A attached hereto.

The extent (by, percentage) of its ownership interest is 100% in the patent applications identified in Table A by virtue of:

a copy of the pertinent assignment from the inventor(s) of the patent applications identified in Table A is enclosed herewith.

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

Respectfully submitted,
ISIS PHARMACEUTICALS, INC.

Date: 5-30-03

By: _____

Name: B. Lynne Parshall
Title: Executive Vice President

TABLE A

SERIAL NO.	FILING DATE	INVENTORS	EXAMINER	ART UNIT	TITLE
09/546,596	April 10, 2000	Cook, Manoharan, Bennett	J.N. Fredman	1637	Compositions and Methods for Enhanced Biostability and Altered Biodistribution of Oligonucleotides in Mammals
09/902,953	July 11, 2001	Krotz, Mehta	J.Schultz	1635	Enhancement of the Stability of Oligonucleotides Comprising Phosphorothioate Linkages by addition of Water-Soluble Antioxidants
09/944,493	August 22, 2001	Weinbach, Tillman, Geary, Hardee	Not Yet Determine	1615	Pulsatile Release Compositions and Methods for Enhanced Intestinal Drug Absorption
09/935,316	August 22, 2002	Teng, Weinbach, Tillman, Geary, Hardee	Not yet determined	1632	Bioadhesive Compositions and Methods for Enhanced Intestinal Drug Absorption
10/029,598	December 21, 2001	Teng, Cook, Tillman, Hardee, Ecker, Manoharan	J. Epps	1635	Compositions and Methods for Non-Parenteral Delivery of Oligonucleotides
09/315,294	May 20, 1999	Mehta, Hardee, Cook, Ecker, Tsai, and Templin	M. Schmidt	1635	Compositions and Methods for Topical Delivery of Oligonucleotides
09/315,298	May 20, 1999	Teng, Cook, Tillman, Hardee, Ecker and Manoharan	J. Epps	1635	Compositions and Methods for Non-Parenteral Delivery of Oligonucleotides
09/108,673	July 1, 1998	Teng, and Hardee	W. Sandals	1636	Compositions and Methods for the Delivery of Oligonucleotides via the Alimentary Canal



UNITED STATES
PATENT AND
TRADEMARK OFFICE



APRIL 25, 2002

WOODCOCK WASHBURN LLP
EMMA R. DAUKET
ONE LIBERTY PLACE - 46TH FLOOR
PHILADELPHIA, PENNSYLVANIA 19103-7301

PTAS

1515-4523

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JUL 10 2002

APR 29 2002

WOODCOCK WASHBURN LLP
Woodcock & Morris LLP

Commissioner for Trademarks
Arlington, VA 22202-3513
www.uspto.gov



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UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 02/19/2002

REEL/FRAME: 012622/0812

NUMBER OF PAGES: 7

BRIEF: ASSIGNMENT OF ASSIGNEE'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNEE:

WEINBACH, SUSAN P.

DOC DATE: 12/11/2001

ASSIGNEE:

TILLMAN, LLOYD G.

DOC DATE: 12/11/2001

ASSIGNEE:

GEARY, RICHARD S.

DOC DATE: 12/06/2001

ASSIGNEE:

HARDEE, GREGORY E.

DOC DATE: 12/11/2001

ASSIGNEE:

ISIS PHARMACEUTICALS, INC.
2292 FARADAY AVENUE
CARLSBAD, CALIFORNIA 92008

RECEIVED
APR 29 2002
DOCKET DEPT.
WWKMN

SERIAL NUMBER: 09944493
PATENT NUMBER:

FILING DATE: 08/22/2001
ISSUE DATE:

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SEARCHED
5/6/02

012622/0812 PAGE 2

LAZENA MARTIN, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

A S S I G N M E N T

WHEREAS, we, Susan Weinbach of San Diego, California; Lloyd G. Tillman of Carlsbad, California; Richard S. Geary of Carlsbad, California; and Gregory E. Hardee of Rancho Santa Fe, California, have invented a certain invention entitled **Pulsatile Release Compositions and Methods for Enhanced Intestinal Drug Absorption**, for which we have made an application for Letters Patent of the United States, said application having been filed **August 22, 2001** and assigned Application No. **09/944,493**; and

WHEREAS, ISIS Pharmaceuticals, Inc. hereinafter referred to as the assignee, of 2292 Faraday Avenue, Carlsbad, California 92008, a corporation of Delaware, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in consideration of the sum of One Dollar (\$1.00) to each of us in hand paid by said assignee, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said assignors, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said application and any and all continuations, divisions and renewals of and substitutes for said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in our names applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

AND we hereby covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith, and we further covenant and agree that we will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees, or legal representatives, and each of us agrees to communicate to said assignee or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

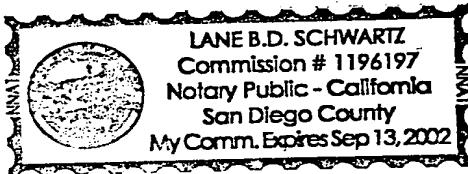
IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Dated: 12/11, 2001

Susan Weinbach
Susan Weinbach

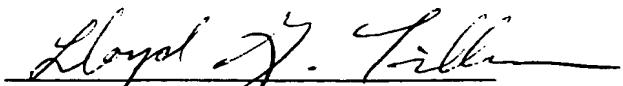
State of California)
)
 ss.
County of San Diego)

On this 18th day of December, 2001, before me, the undersigned, a Notary Public for the state, personally appeared Susan Weinbach, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.



WITNESS my hand and official seal.

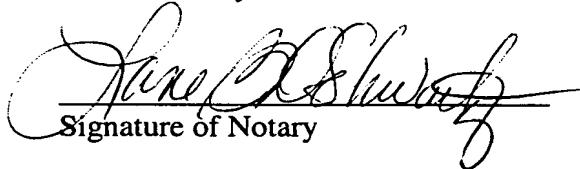
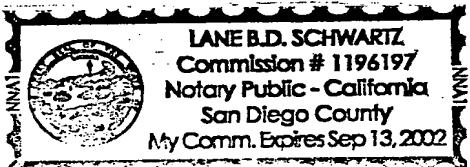
Dave B. Schwartz
Signature of Notary

Dated: Dec 11, 2001
Lloyd G. Tillman

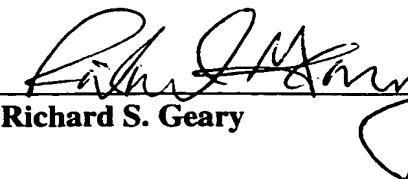
State of California)
) ss.
County of San Diego)

On this 11th day of December, 2001, before me, the undersigned, a Notary Public for the state, personally appeared Lloyd G. Tillman, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.


Signature of Notary

Dated: Dec 6, 2001


Richard S. Geary

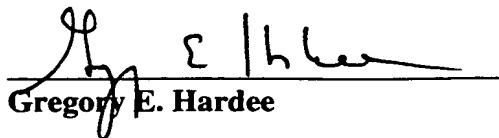
State of California)
)
 ss.
County of San Diego)

On this 10th day of December, 2001, before me, the undersigned, a Notary Public for the state, personally appeared **Richard S. Geary**, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.



WITNESS my hand and official seal.

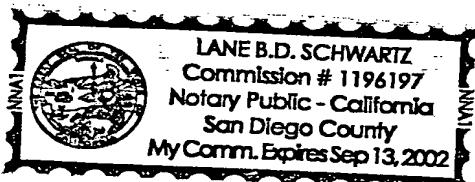

Signature of Notary

Dated: Dec. 11, 2001

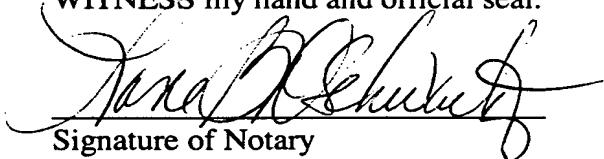
Gregory E. Hardee

State of California)
)
 ss.
County of San Diego)

On this 11th day of December, 2001, before me, the undersigned, a Notary Public for the state, personally appeared **Gregory E. Hardee**, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.



WITNESS my hand and official seal.



Signature of Notary

**RECORDATION FORM COVER SHEET
PATENTS ONLY**

To The Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

Susan P. W inbach
First Assignor

December 11, 2001
Date of Execution

Lloyd G. Tillman
Second Assignor

December 11, 2001
Date of Execution

Richard S. Geary
Third Assignor

December 6, 2001
Date of Execution

Gregory E. Hardee
Fourth Assignor

December 11, 2001
Date of Execution

Fifth Assignor

Date of Execution

Sixth Assignor

Date of Execution

Additional name(s) of conveying party(ies) attached? YES NO

2. Name and address of receiving party(ies):

Name: ISIS Pharmaceuticals, Inc.

Street Address: 2292 Faraday Avenue

City: Carlsbad

State California ZIP 92008

Additional name(s) & address attached? YES NO

3. Nature of Conveyance (check only one):

New Assignment Merger
 License Agreement Security Agreement
 Change of Name Other:

Cross-reference of Assignment filed in United States Application No. ____ /____, recorded on _____ at Reel No. _____ and Frame No. _____

4. Identification of Application number(s), patent number(s) OR date of execution of application to which assignment refers:

Application Nos.:

09/944,493 filed August 22, 2001

Patent Nos.:

Date application was signed by the first named executing inventor

(Fill-in this date only if assignment is filed together with a new application)

5. Name and address of party to whom correspondence concerning documents should be mailed:

Name: Emma R. Dailey
WOODCOCK WASHBURN LLP
One Liberty Place - 46th Floor
Philadelphia, Pennsylvania 19103-7301
215-568-3100

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41):.....\$40.00

Enclosed
 Authorized to be charged to Deposit Account Number 23-3050

8. Please charge any deficiency or credit any overpayment to Deposit Account Number 23-3050

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Emma R. Dailey/48,491

Name of Person Signing/Reg. No.

Signature

January 30, 2002

Date

Total number of pages including cover sheet, assignment document and additional pages attached thereto: 7

Mail documents to be recorded with required cover sheet information to:

Commissioner of Patents and Trademarks
Box Assignments
Washington, D.C. 20231